In the Claims:

Claim 1 (currently amended):

1. An information hiding method with reduced fuzziness, which comprises the steps of:

   inputting the information to be embedded into a convolutional encoder and generating encoded information whose length is a multiple of the original information;

   generating a random number sequence using interleaving encoding for permuting the encoded information, the seed of the random numbers being a first key;

   selecting a pixel of a host image using a random number generator as an information embedding point of the encoded information, the seed of the random number generator being a second key, and

   embedding the encoded information into a B channel of the pixel of the host image;

   further wherein the host image H is an image of m×n pixels and the electronic signature to be embedded is information W with a size L, both the host image H and the embedded information W being expressed as:

   $H=\{h_{ij} \mid 0□i□m, 0□j□n, h_{ij} \in [0,255]\}$, and

   $W=\{w_i \mid 0□i□L, w_i \in [0,1]\}$; and

   a set $ASET_{ij}=\{h_{i+1,j}, h_{i-1,j+1}, h_{i,j+1}, h_{i+1,j+1}\}$ being defined for four pixels surrounding and to the right of any pixel h_{ij} in the host image.

Claim 2 (previously amended):

2. The method according to claim 1, wherein the convolutional encoding corrects transmission errors or human damages on the encoded information.

Claim 3 (original):

3. The method according to claim 1, wherein the random number sequence is generated by a linear feedback shift register.

<u>Claim 4 (original)</u>:

4. The method according to claim 3, wherein the linear feedback shift register comprises a plurality of buffers.

<u>Claim 5 (previously amended)</u>:

5. The method according to claim 1 further comprising the following steps for extracting the embedded information:

   using the second key to compute the embedding positions of the encoded information;

   using the first key to reconstruct the encoded information and to restore the order before interleaving encoding; and

   decoding the encoded information using convolutional_decoding.

<u>Claim 6 (withdrawn)</u>:

~~6. The method according to claim 1, wherein the host image H is an image of m×n pixels and the electronic signature to be embedded is information W with a size L, both the host image H and the embedded information W being expressed as:~~

   ~~H={hij¢x0¡Øi¡Õm,0¡Øj¡Õn,hij[0,255]}, and~~

   ~~W={wi¢x0¡Øi¡ÕL,wi[0,1]}; and~~

   ~~a set ASETij={hi+1,j, hi-1,j+1, hi,j+1, hi+1,j+1} being defined for four pixels surrounding and to the right of any pixel hij in the host image.~~

<u>Claim 7 (currently amended)</u>:

7. The method according to claim ~~6~~ <u>1</u>, wherein a temporary variable is defined to be h'= $(h_{i-1,j-1}+h_{i,j-1}+h_{i-1,j+1}+h_{i-1,j}+h_{i+1,j}+h_{i-,j+1}+h_{i,j+1}+h_{i+1,j+1})/8$.

Claim 8 (withdrawn):

~~8. The method according to claim 6 further comprising the step of adjusting the values of hi,j and ASETi,j according to:~~

~~while(((h'-hij¡Øt) and (w=0)) or ((hij-h'¡Øt) and (w=1))) do~~

~~begin~~

~~for each hi',j'ASETi,j do~~

~~hi',j'=hi',j'-2w+1;~~

~~hi,j= hi,j+2w-1;~~

~~h'=(hi-1,j-1+hi,j-1+hi-1,j+1+hi-1,j+hi+1,j+hi-,j+1+hi,j+1+hi+1,j+1)/8;~~

~~end.~~

Claim 9 (original):

9. The method according to claim 5, wherein the hidden information is true if h'□$h_{i,j}$ in the step of using the second key to compute the embedding positions of the encoded information.

Claim 10 (previously amended):

10. The method according to claim 5, wherein the convolutional decoding adopts the Viterbi algorithm.